

Ceco FIREPROOFING AND REINFORCING MATERIALS

ERNEST F. BORCHERT

7032 EMMETT AVE. CHICAGO, ILL.

E. F. BORCHERT

For Skyscraper or Bungalow

CONCRETE ENGINEERING CO.

Ceco Fireproofing and Reinforcing Materials

A complete line of fireproofing and reinforcing materials, each product of which is peculiarly and economically adapted for permanency of construction, whether it be used in your neighbor's modest residence, or in that monument of industry, the modern skyscraper.

CONCRETE ENGINEERING COMPANY

OFFICES:

OMAHA, MILWAUKEE
CHICAGO, DES MOINES
KANSAS CITY, DETROIT

WAREHOUSES:

OMAHA
CHICAGO
KANSAS CITY

Index

ERNEST F. BORCHERT
7032 EMERALD AVE. VINC. 20J2

CONTENTS	PAGE
Ceco Reinforcing Bars.....	1
Ceco Column Spirals.....	2
Meyer Removable Steelforms.....	3
Ceco Round Column Forms.....	4
Triangle Mesh Concrete Reinforcement.....	5
Ceco Expanded Metal Reinforcing.....	6
Ceco Rib Reinforcing.....	7
Ceco Economy Metal Lath.....	8
Ceco Quality Metal Lath.....	9
Ceco Self-Furring Metal Lath.....	10
Ceco Wire Lath.....	11
Ceco Cold Rolled Channels.....	12
Ceco Corner Beads.....	13
Ceco Base Beads.....	13
Ceco Rail Beads.....	14
Ceco Service.....	15

ERNEST F. BORCHERT
7032 EMERALD AVE. VINC. 20J2

Ceco Reinforcing Bars

Ceco Reinforcing Bars are rolled in both new billet and rail steel, and are furnished in either plain or deformed rounds and squares. They conform to the Manufacturers' Standard Specifications for both new billet and rail steel.

Shipments can be made from the mills in carload lots, and either carload or less than carload orders filled immediately from our warehouse stocks at Chicago, Omaha, and Kansas City.

Furnished cut to length, and bent to specifications, at either mill or warehouse.

TABLE OF SIZES
WEIGHTS, AREAS AND EXTRAS

Size	Round Bars		Square Bars		Size Extras
	Area	Weight	Area	Weight	
1/4"	.049	.167	.063	.212	50c per cwt.
3/8"	.110	.376	.141	.478	25c per cwt.
1/2"	.196	.668	.250	.850	10c per cwt.
5/8"	.307	1.043	.391	1.328	05c per cwt.
3/4"	.442	1.502	.563	1.913	Base
7/8"	.601	2.044	.766	2.603	Base
1"	.785	2.670	1.000	3.400	Base
1 1/8"	.994	3.380	1.265	4.303	Base
1 1/4"	1.227	4.172	1.563	5.313	Base



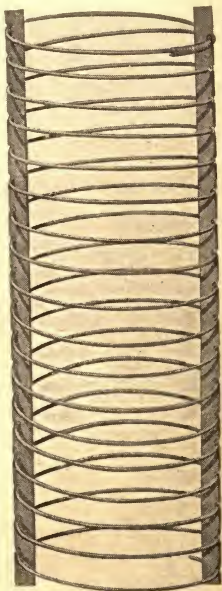
Ceco Column Spirals

For years this Company has designed column spirals and placed them on the job. This wide experience has best qualified them for the manufacture of Ceco Column Spirals, which from their introduction have been an unqualified success. Ceco Column Spirals are accurately shaped to the required diameter by machinery, and held in the correct pitch by our new slotted "V" spacer, which not only accurately spaces each wire, preventing distortion, but allows the spirals to be collapsed for shipment and readily expanded to their required diameter after reaching the building site.

Unless otherwise specified, two spacers are furnished with each spiral, which is sufficient to firmly hold the spiral in the diameter and pitch designed. The hooping is given an extra turn at each end and securely wired in position so that no slipping is possible.

Entirely adequate stocks of both spacers and wire hooping are always maintained at our Chicago warehouse plant.

Prompt shipment of any size order accomplished without delay.



MEYER

Removable Steelforms

Meyer Steelform Construction is economically adapted for all buildings with long spans. A series of concrete joists is formed with Meyer Removable Steelforms, thereby eliminating all concrete useless in resisting stresses, and effecting a great saving in form work through the early removal and speedy re-use possible with Meyer Steelforms, made of 16-gauge sheet steel.

Formed into exact shape by heavy presses, they are extremely rigid, so that a maximum of re-use is secured. Meyer Steelforms are rented to the contractor, the labor of placing and removing being handled by our Contract Department. They are furnished in 6, 8, 10 and 12-inch depths in 20-inch widths, and 12 and 15-inch depths in 30-inch widths, as well as special widths for economical framing; and with both Single Tapered and Double Tapered Endforms, which also effect great economy.

Our Handbook of Fireproof Construction gives designing data, construction details and specifications for Meyer Steelform Construction.



Ceco Round Column Forms

Ceco Round Column Forms are made in standard adjustable sections, all snugly fitted together by means of tongue and groove joints, and held in place with both flat and tee-iron clamps. All parts are completely interchangeable, and columns with diameters of 12 to 48 inches, of any height, are quickly formed.

The natural rigidity of the heavy gauge sheet steel, with the added reinforcement of the tongue and groove joint between clamps, makes an absolutely stiff and rigid form. The column section is always uniform throughout, and a smooth surface is a certainty.

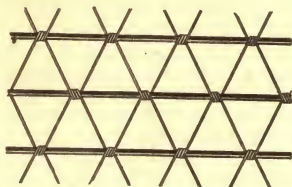
They may be used with any type of floor construction, special column caps being furnished when necessary.

Due to their complete adjustability, and the ease in which all parts may be interchanged, permitting constant re-use in the different floors of different buildings, Ceco Round Column Forms effect great economy.

Our Contract Department will erect Ceco Round Column Forms in place ready for concrete, thereby guaranteeing complete satisfaction. Or they will be rented to responsible parties without the labor of installation. Send for our circular.



Triangle Mesh Concrete Reinforcement



It would be difficult to find a more popular form of ready-to-place concrete reinforcement than Triangle Mesh Reinforcement. All members are accurately spaced, insuring an even distribution of steel, and minimum cost of placing. Triangle Mesh is the only design of woven wire fabric in which the cross or diagonal wires assist the longitudinal or tension members in carrying the load, and in which these diagonal wires are continuous from end to end.

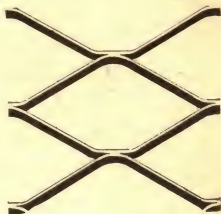
It is furnished in rolls, 150, 200 and 300 feet long, and 16 to 56 inches in width, either galvanized or plain. We furnish a simple machine at small cost with which the rolls may be straightened and strips cut to the desired lengths. The following styles are carried in our warehouses, and many other styles are available at the factory for prompt shipment in any quantity. Write for our circular.

300' x 56"

Style	Mesh	Long Wire	Cross Wire	Sectional Area	Wt. Per 100 Sq. Ft.
016	8x8"	12	14	.016 sq. in.	11 lbs.
032	4x4"	12	14	.032 sq. in.	22 lbs.
049	4x4"	10	14	.049 sq. in.	28 lbs.
068	4x4"	9	14	.068 sq. in.	35 lbs.
093	4x4"	6	14	.093 sq. in.	45 lbs.

Ceco Expanded Metal Reinforcing

Ceco Expanded Metal Reinforcing is an efficient reinforcement for use in the construction of concrete roofs, floors, sidewalks, roads, bridges, sewers, etc.



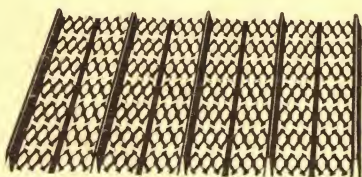
It saves labor, assures absolutely correct placing and practically any desired sectional area of steel can be furnished. Made in convenient sizes, it is easily handled by one man, and large areas are quickly covered. Furnished in the following styles:

Style

Standard Sheets

Diam'd in inches	Sec. Ar.	Weight in lbs. per sq. ft.	Compara- tive Gauge	Widths	Lengths
3 x7	.059	.20	16	3', 5', 6'	6', 8', 10'
3 x7	.082	.28	12	3', 5', 6'	6', 8', 10'
3 x7	.115	.39	12	3', 5', 6'	6', 8', 10'
3 x7	.130	.44	12	3', 5', 6'	6', 8', 10'
3 x7	.147	.50	10	3', 5', 6'	6', 8', 10'
3 x7	.162	.55	10	3', 5', 6'	6', 8', 10'
3 x7	.179	.61	10	3', 4', 5', 6'	6', 8', 10'
3 x7	.251	.85	10	3', 5'	6', 8', 10'
3 x7	.274	.93	10	3', 4', 5', 6'	6', 8', 10'
3 x7	.324	1.10	10	3', 5'	6', 8', 10'
3 x7	.377	1.28	10	3', 4', 5', 6'	6', 8', 10'
2 1/4 x5	.089	.30	16	5' 4"	6', 8', 10'
2 1/4 x5	.155	.52	12	4' 4"	6', 8', 10'
1 1/2 x3	.108	.36	16	5' 3"	6', 8', 10'
1 1/2 x3	.179	.61	12	3', 4', 5', 5' 3", 6'	6', 8', 10'
1 x2 1/8	.162	.55	16	5' 3"	6', 8', 10'
1 x2 1/8	.206	.70	12	5' 3"	6', 8', 10'
3/4 x2	.200	.68	13	3' 6"	6', 8'
1 1/2 x1 3/16	.226	.76	18	3', 6'	6', 8'
3x6	.413	1.40	6	3', 4', 5', 6'	6', 8', 10'

Ceco Rib Reinforcing



This is a most efficient reinforcement for either plaster, or light weight concrete work. It is a one-piece product, a combination of expanded metal lath and "V" ribs, with a strip of plain metal left between the ribs for further strengthening, thus producing an exceptionally rigid sheet.

In plaster walls and partitions, it eliminates the use of the channel studding ordinarily used to stiffen the metal lath construction. For thin slabs of concrete, Ceco Rib Reinforcing acts as both form work and reinforcing, eliminating the use of solid decked centering. It is economically used in interior and exterior walls and partitions, light floors, roofs, etc.

STYLES

$\frac{3}{4}$ " Rib

$3\frac{1}{4}$ " c.c. of Ribs, Sheets 13" wide, 6, 8, 10, and 12' lengths in stock.

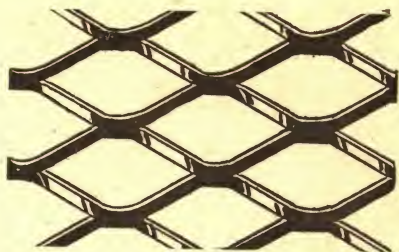
24 Gauge,	weight per 100 square feet,	97 lbs.
26 Gauge,	weight per 100 square feet,	73 lbs.
28 Gauge,	weight per 100 square feet,	61 lbs.

$\frac{5}{16}$ " Rib.

3" c.c. of Ribs, Sheets 18" wide, 8 and 12' lengths in stock.

24 Gauge,	weight per 100 square feet,	62 lbs.
26 Gauge,	weight per 100 square feet,	47 lbs.
28 Gauge,	weight per 100 square feet,	39 lbs.

Ceco Economy Metal Lath



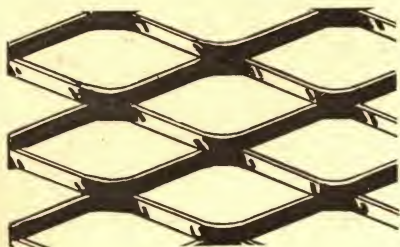
This style is an especially economical, small mesh lath, manufactured in heavy gauges, and having wider and thicker strands of metal, than other types of lath weighing the same per yard. It has a twist or slant in the strands of the mesh which prevents shearing of plaster, and increases the rigidity of the sheets.

The sheets are absolutely square and rectangular, having no sharp edges or ragged ends. It is exceptionally rigid, and lies absolutely flat, being easily and economically erected. Made from highest grade, open hearth steel, and furnished painted, galvanized after expansion, or in copper iron alloy, in the following gauges and weights per yard:

Gauge	Wt. per yd.	Data
22	3.40 lbs.	Sheets.
22½	3.33 lbs.	21"x97".
23	3.10 lbs.	1.57 yards per Sheet.
24	2.80 lbs.	9 sheets per Bundle.
25	2.50 lbs.	14 yards per Bundle.
26	2.20 lbs.	

Add one pound per square yard to above weights for galvanized lath.

Ceco Quality Metal Lath



As the name implies, this is a high grade lath to be used where quality is the first essential. It has wide strands of metal and weighs more than ordinary lath. As indicated by the schedule of weights for the various gauges, more steel is used in this lath and a minimum of plaster is obtained, due to the solid rigidity of the lath itself. It does not bend beneath the plasterer's trowel, but stays straight and firm, requiring a uniform coat of plaster throughout.

The 24 gauge, weighing 4 pounds per yard, meets the Government's postoffice specification. As in the case of Ceco Economy Metal Lath, it is furnished either painted, galvanized after expansion, or in copper iron alloy.

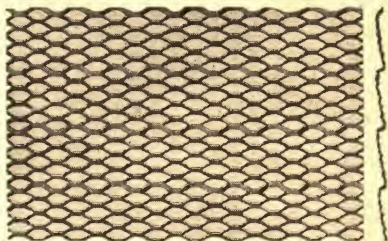
Gauge	Wt. per yd.
24	4.00 lbs.
25	3.50 lbs.
26	3.00 lbs.

24	4.00 lbs.	Sheets, 24' x 96'
25	3.50 lbs.	11.75 yards per Sheet.
26	3.00 lbs.	9 sheets, 14 yds. per bundle.

24 Data 1,775
16

Add one pound per square yard to above weights for galvanized lath.

Ceco Self-Furring Metal Lath



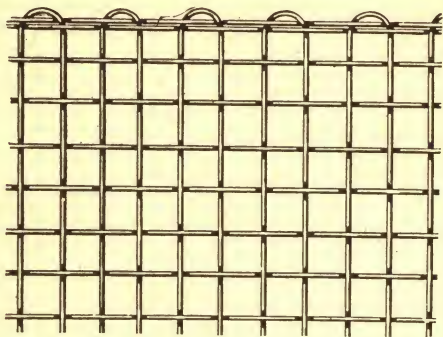
Ceco Self-Furring Metal Lath is Ceco Economy Metal Lath manufactured with ribs or corrugations running lengthwise of the sheet at 2" on centers, and $\frac{1}{4}$ " high. These corrugations eliminate the use of furring strips, and greatly increase the strength and rigidity of each sheet.

It is especially economical for use in exterior stucco work, being applied directly to the sheathing boards or studding, no furring strips being necessary, and a uniform thickness of plaster is a certainty. Many contractors use it where flat lath is ordinarily used, as well as where furring strips would otherwise be necessary. It is furnished painted, galvanized after expansion, or in copper iron alloy:

Gauge	Wt. per yd.	Data
24	2.80 lbs.	Sheets, 21"x97".
25	2.50 lbs.	1.57 yards per Sheet.
26	2.20 lbs.	9 sheets, 14 yds. per Bundle.

Add one pound per square yard to above weights for galvanized lath.

Ceco Wire Lath



Some builders and architects prefer wire lath, for the reason that it is economical in first cost and when properly erected is a thoroughly practical reinforcement and base for plastered walls and ceilings.

Two strands of wire are used on the outside edges, of Ceco Wire Lath, thus securely tying and spacing the cross wires.

It is a well-known fact that drawn steel wire possesses great tensile strength, the working or drawing of the wire through dies producing a material of high uniform quality and tensile strength. Each and every strand is completely imbedded in the plaster so that the combination of the two materials affords a substantial and permanent construction.

Ceco Wire Lath is furnished in but one gauge; namely, 18 W. & M. gauge, two and one-half meshes to the inch, either painted or galvanized. It weighs 3.3 pounds per yard, and is furnished in rolls 3'0" wide, containing 50 yards.

Ceco Cold Rolled Channels

Ceco Cold Rolled Channels, either plain or perforated, are used in conjunction with Ceco Metal or Wire Lath, in erecting ceilings, partitions, etc., in first-class fireproof structures. In comparison with the heavier hot rolled channel, you have much greater tensile strength, weight for weight, in our cold rolled channel, than can be secured in the hot rolled product. They are made from best grade open hearth steel, with square shoulders, and on account of the great strength and reduced weight, are much more economical than the hot rolled channel..

Furnished in lengths, 9 to 20 feet.



PLAIN

Gauge	Size	Weight per M Linear Feet	Size of Flange
16	3/4"	208	3/8"
16	7/8"	276 lbs.	3/8"
16	1"	304 lbs.	3/8"
16	1 1/4"	331.5 lbs.	3/8"
16	1 1/2"	386.8 lbs.	3/8"
16	1 7/8"	456 lbs.	3/8"
16	2"	580 lbs.	3/8"
16	2 1/2"	635.4 lbs.	1/2"
16	3"	539 lbs.	1/2"
16	3 1/2"	458.2 lbs.	1/2"

PERFORATED

Gauge	Size	Weight per M Linear Feet	Size of Flange
16	1 1/2"	455.8 lbs.	3/8"
18	1 7/8"	458.2 lbs.	1/2"
18	2"	479 lbs.	1/2"
18	2 1/4"	520.6 lbs.	1/2"
18	2 1/2"	562.3 lbs.	1/2"
18	3"	645.6 lbs.	1/2"
18	3 1/2"	728.9 lbs.	1/2"

Ceco Corner Beads



Plastered corners are easily broken, and our Ceco Corner Beads here illustrated are designed to afford a steel reinforcement for the plastered corner, as well as a guide for the plaster when applied. Ceco Corner Beads are made of 24 and 26 gauge steel, and being heavily galvanized, will not rust and stain the plaster. This is an exceptionally heavy bead. The metal is brought snugly together below the nose of the bead, producing a tee-section which effects great rigidity, and lowers installation costs. The round openings in the flanges permit a strong keying action on the part of the plaster.

We furnish our special corner bead clip, which is easily applied to the flange of the bead, permitting adjustment for any depth of grounds.

Lengths, 6, 7, 8, 9, 10 and 12 feet. Weight, 225 pounds per 1,000 linear feet. Shipped 10 pieces to the bundle.

Ceco Base Beads



This Bead is extensively used to separate the cement, or composition base, from the wall plaster above. It affords a straight and sanitary joint between the two materials, preventing their contact

and the absorption of moisture. It is made only for $\frac{1}{2}$ " grounds, and of 24 gauge steel, galvanized after forming. The following lengths are furnished: 6, 7, 8, 9, 10, 11 and 12 feet. It weighs 170 pounds per 1,000 linear feet, and is shipped 12 pieces to the bundle.

Ceco Rail Beads



Some architects and contractors prefer this type of bead which affords a substantial protection for the plastered corner.

It is adjustable for any depth of grounds, one clip per foot of length being furnished, and is especially strong and heavily galvanized.

The long clips supplied with *Ceco* Rail Beads are easily and quickly applied and make it especially adapted for use on corners where good grounds for fastening are not available.

This Bead is particularly adapted for work in which beads must be bent to a radius.

Furnished in lengths of 6, 7, 8, 9, 10 and 12 feet. Weight, 130 pounds per 1,000 feet. Shipped 25 pieces to the bundle.

Ceco Service

Our Warehouses at Youngstown, Ohio; Chicago, Illinois; Omaha, Nebraska, and Kansas City, Missouri, carry complete stocks of all Ceco Fireproofing and Reinforcing Materials at all times. Immediate shipment of any size order can be made at once. All necessary cutting to length, bending and other fabricating, can be economically handled at these warehouses.

If desired, our Contract Department will erect all materials where the quantity is large enough to warrant our doing so.

Our Engineering Department will prepare complete designs of all types of reinforced concrete construction, at a nominal charge. Preliminary estimates of cost, lay-outs, etc., are a part of our service, and incur no obligation.

We are pleased to furnish detailed information regarding the several uses for which our products are economically adapted. It is our aim to recommend the proper concrete design, and furnish the most economical reinforcing and fireproofing materials with which that design may be correctly executed. Our Handbook of Fireproof Construction gives complete construction details, specifications, etc., covering the various uses of Ceco Fireproofing and Reinforcing Materials. Send for it.



SCHEDULE OF SHIPPING WEIGHTS: May 21, 1921

PRODUCT								WT. IN POUNDS	PER
22 Ga.	Economy Lath,	Painted or	Copper Iron Alloy					3.40	Sq. Yd.
22 1/2 "	"	"	"	"	"	"	"	3.33	" "
23 "	"	"	"	"	"	"	"	3.10	" "
24 "	"	"	"	"	"	"	"	2.80	" "
25 "	"	"	"	"	"	"	"	2.50	" "
26 "	"	"	"	"	"	"	"	2.20	" "
24 "	Self Furring	"	"	"	"	"	"	2.80	" "
25 "	"	"	"	"	"	"	"	2.50	" "
26 "	"	"	"	"	"	"	"	2.20	" "
24 "	Quality Lath	"	"	"	"	"	"	4.00	" "
25 "	"	"	"	"	"	"	"	3.50	" "
26 "	"	"	"	"	"	"	"	3.00	" "
Add one pound per sq.yd. to above wts. for galvanized lath.									
24 Ga.	3/4" Rib	Reinforcing						97.00	100 sq. ft.
26 "	"	"	"	"	"	"	"	73.00	" " "
28 "	"	"	"	"	"	"	"	61.00	" " "
24 "	5/16"	"	"	"	"	"	"	62.00	" " "
26 "	"	"	"	"	"	"	"	47.00	" " "
28 "	"	"	"	"	"	"	"	39.00	" " "
Ceco Corner Bead (26 ga.)								165.00	1000 lin.ft.
Ceco Bull Nose Corner Beads (26 ga.)								290.00	" " "
Ceco Rail Bead (24 ga.)								130.00	" " "
Ceco Inside Corner Bead (28. ga.)								185.00	" " "
Ceco Plain Base Bead (24 ga.)								170.00	" " "
Ceco Curved Base Bead (26 ga.)								225.00	" " "
Ceco Metal Picture Molding (26 ga.)								225.00	" " "
Ceco Corner Bead Clips								30.00	" " "
3/4" 18 ga. Cold Rolled Channels								208.00	" " "
3/4" 16 " " " " " "								276.00	" " "
1" 16 " " " " " "								331.50	" " "
1 1/2" 16 " " " " " "								456.00	" " "
2" 16 " " " " " "								580.00	" " "
4" Bar Chairs (Campbell)								8.00	100 Pes.
5" " " " " " " " " " " " "								8.50	" " "
6" " " " " " " " " " " " "								9.00	" " "
Partition Clips (half size)								4.00	" " "
" " " " " " " " " " " "								6.00	" " "
Plaster Board								2.00	sq. ft.
#3 Wire								.1584	Lin. Ft.
#8 " " " " " " " " " " " "								.0700	" " "
#10 " " " " " " " " " " " "								.0486	" " "
#12 " " " " " " " " " " " "								.0296	" " "
#14 " " " " " " " " " " " "								.0170	" " "
#16 " " " " " " " " " " " "								.0104	" " "
#18 " " " " " " " " " " " "								.0060	" " "

NOT IN STOCK

Plaster Board be interested

#3 Wire our design of concrete

#8 " floors for residences, costing

#10 " but little more than wood

#12 " floors, and far superior.

#14 " Send for our circulars

#16 " describing these products.

#18 " " " " " " " " " " " "

Distributed by

Digitized by ASSOCIATION FOR PRESERVATION TECHNOLOGY, www.apti.org for the
BUILDING TECHNOLOGY HERITAGE LIBRARY
<https://archive.org/details/buildingtechnologyheritagelibrary>

From the collection of Mike Jackson, FAIA

Contributed by

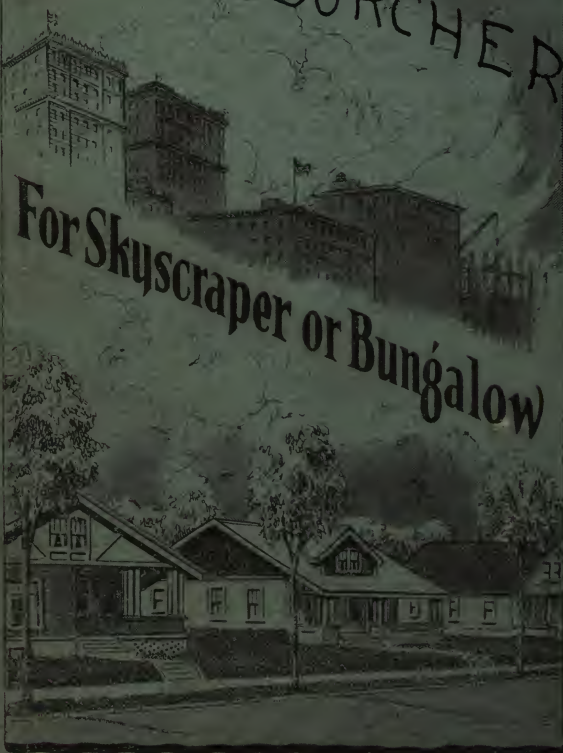
Ceco FIREPROOFING AND REINFORCING MATERIALS

ERNEST F. BORCHERT

2032 EMBURY AVE. CHICAGO, ILL.

E. F. BORCHERT

For Skyscraper or Bungalow



CONCRETE ENGINEERING CO.